This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-4 (canceled)

Claim 5. (original) A manufacturing method for manufacturing an acceleration sensor, comprising the steps of:

preparing 4n planar green sheets made of piezoelectric ceramic, where n is an integer greater than or equal to 1;

applying a conductive paste on a surface of at least one of the green sheets at positions corresponding to a center portion and both end portions of individual piezoelectric elements in the longitudinal direction, whereby segmented electrodes are formed for a plurality of piezoelectric elements;

applying a conductive paste on surfaces of at least two of the other green sheets so that the conductive paste is led to positions corresponding to ends of each piezoelectric element in the longitudinal direction, whereby lead electrodes are formed for the plurality of piezoelectric elements;

stacking the green sheets so that the segmented electrode and the lead electrodes are alternately arranged and so that the electrode in the middle in the thickness direction is the segmented electrode;

firing the green sheets to produce a piezoelectric ceramic fired compact which includes a plurality of piezoelectric layers and simultaneously baking the conductive paste;

forming polarization electrodes on the front and back faces of the piezoelectric ceramic fired compact, the polarization electrodes being segmented into portions according to the positions corresponding to the center portion and both end portions of each piezoelectric element;

applying a DC electric field to the polarization electrodes and in between the segmented electrode and the lead electrodes to polarize the piezoelectric ceramic fired compact in the thickness direction so that, when an acceleration is applied, charge having

the same polarity is extracted from the lead electrodes in the piezoelectric layers on both sides of the lead electrodes and so that the center portion and both end portions of each piezoelectric layer are polarized in opposite directions;

interconnecting the portions of the polarization electrodes or forming continuous electrodes after removing the polarization electrodes, whereby lead electrodes leading to the ends of the piezoelectric element in the longitudinal direction are formed on the front and back faces of the piezoelectric element,

cutting the piezoelectric ceramic fired compact into individual piezoelectric elements; and

forming external electrodes on both end faces of the cut piezoelectric element and connecting the external electrodes and the lead electrodes which are formed inside and on the front and back faces of the piezoelectric element.

Claim 6. (original) A manufacturing method for manufacturing an acceleration sensor, comprising the steps of:

preparing 4n + 2 planar green sheets made of piezoelectric ceramic, where n is an integer greater than or equal to 1;

applying a conductive paste on surfaces of at least three of the green sheets at positions corresponding to a center portion and both end portions of individual piezoelectric elements in the longitudinal direction, whereby segmented electrodes are formed for a plurality of piezoelectric elements;

applying a conductive paste on surfaces of at least two of the other green sheets so that the conductive paste is led to positions corresponding to ends of each piezoelectric element in the longitudinal direction, whereby lead electrodes are formed for the plurality of piezoelectric elements;

stacking the green sheets so that the segmented electrodes and the lead electrodes are alternately arranged and so that the electrode in the middle in the thickness direction is the segmented electrode;

firing the green sheets to produce a piezoelectric ceramic fired compact which

includes a plurality of piezoelectric layers and simultaneously baking the conductive paste; forming lead electrodes on the front and back faces of the piezoelectric ceramic fired compact, the lead electrodes being led to positions corresponding to the ends of each piezoelectric element in the longitudinal direction;

applying a DC electric field in between the segmented electrodes and the lead electrodes to polarize the piezoelectric ceramic fired compact in the thickness direction so that, when an acceleration is applied, charge having the same polarity is extracted from the lead electrodes in the piezoelectric layers on both sides of the lead electrodes and so that the center portion and both end portions of each piezoelectric layer are polarized in opposite directions;

cutting the piezoelectric ceramic fired compact into individual piezoelectric elements; and

forming external electrodes on both end faces of the cut piezoelectric element and connecting the external electrodes and the lead electrodes which are formed inside and on the front and back faces of the piezoelectric element.

Claim 7. (original) A manufacturing method for manufacturing an acceleration sensor, comprising the steps of:

preparing 4n + 1 planar green sheets made of piezoelectric ceramic, where n is an integer greater than or equal to 1;

applying a conductive paste on surfaces of at least two of the green sheets at positions corresponding to a center portion and both end portions of individual piezoelectric elements in the longitudinal direction, whereby segmented electrodes are formed for a plurality of piezoelectric elements;

applying a conductive paste on surfaces of at least two of the other green sheets so that the conductive paste is led to positions corresponding to ends of each piezoelectric element in the longitudinal direction, whereby lead electrodes are formed for the plurality of piezoelectric elements;

stacking the green sheets so that the electrodes arranged on both sides of the

piezoelectric layer in the middle in the thickness direction are the segmented electrodes and so that the segmented electrodes and the lead electrodes are alternately arranged in the other piezoelectric layers;

firing the green sheets to produce a piezoelectric ceramic fired compact which includes a plurality of piezoelectric layers and simultaneously baking the conductive paste;

forming polarization electrodes on the front and back faces of the piezoelectric ceramic fired compact, the polarization electrodes being segmented into portions according to the positions corresponding to the center portion and both end portions of each piezoelectric element;

applying a DC electric field to the polarization electrodes and in between the segmented electrodes and the lead electrodes to polarize the piezoelectric ceramic fired compact in the thickness direction so that, when an acceleration is applied, charge having the same polarity is extracted from the lead electrodes in the piezoelectric layers on both sides of the lead electrodes and so that the center portion and both end portions of each piezoelectric layer are polarized in opposite directions;

interconnecting the portions of the polarization electrodes or forming continuous electrodes after removing the polarization electrodes, whereby lead electrodes leading to the ends of the piezoelectric element in the longitudinal direction are formed on the front and back faces of the piezoelectric element,

cutting the piezoelectric ceramic fired compact into individual piezoelectric elements; and

forming external electrodes on both end faces of the cut piezoelectric element and connecting the external electrodes and the lead electrodes which are formed inside and on the front and back faces of the piezoelectric element.

Claim 8. (original) A manufacturing method for manufacturing an acceleration sensor, comprising the steps of:

preparing $4n + 3$ planar green sheets made of piezoelectric ceramic, where n is an integer greater than or equal to 1;

applying a conductive paste on surfaces of at least four of the green sheets at

positions corresponding to a center portion and both end portions of individual piezoelectric elements in the longitudinal direction, whereby segmented electrodes are formed for a plurality of piezoelectric elements;

applying a conductive paste on surfaces of at least two of the other green sheets so that the conductive paste is led to positions corresponding to ends of each piezoelectric element in the longitudinal direction, whereby lead electrodes are formed for the plurality of piezoelectric elements;

stacking the green sheets so that the electrodes arranged on both sides of the piezoelectric layer in the middle in the thickness direction are the segmented electrodes and so that the segmented electrodes and the lead electrodes are alternately arranged in the other piezoelectric layers;

firing the green sheets to produce a piezoelectric ceramic fired compact which includes a plurality of piezoelectric layers and simultaneously baking the conductive paste;

forming lead electrodes on the front and back faces of the piezoelectric ceramic fired compact, the lead electrodes being led to positions corresponding to the ends of each piezoelectric element in the longitudinal direction;

applying a DC electric field in between the segmented electrodes and the lead electrodes to polarize the piezoelectric ceramic fired compact in the thickness direction so that, when an acceleration is applied, charge having the same polarity is extracted from the lead electrodes in the piezoelectric layers on both sides of the lead electrodes and so that the center portion and both end portions of each piezoelectric layer are polarized in opposite directions;

cutting the piezoelectric ceramic fired compact into individual piezoelectric elements; and

forming external electrodes on both end faces of the cut piezoelectric element and connecting the external electrodes and the lead electrodes which are formed inside and on the front and back faces of the piezoelectric element.